

REMARKS

By the present amendment, independent claim 1 has been amended to obviate the examiner's objections thereto and/or to further clarify the concepts of the present invention. It is submitted that these amendments to claim 1 are helpful in distinguishing the subject claims over the cited prior art and do not raise new issues which would require further consideration and/or search. In addition, it is submitted that such amendments place the application in better form for appeal by materially reducing or simplifying the issues for appeal. Furthermore, no additional claims are presented without cancelling a corresponding number of finally rejected claims. In view of the above, it is submitted that entry of the above amendments is in order and such is respectfully requested.

In the Office Action, claims 1, 4/1 and 6 were rejected under 35 USC § 103(a) as being unpatentable over the previously cited patents to Johnson et al and Ikeda et al further in view of the newly relied upon patent to Mittendorf. In making this rejection, it was asserted that the Johnson et al patent teaches the entire fluid control apparatus as set forth in the noted claims with the exception of the provisions of (1) a tape heater on opposite sides of the line and (2) the tape heaters being held with a resilient force of a clip. The Ikeda et al patent was then cited to allegedly supply the first teaching deficiency and the patent to Mittendorf was cited as supplying the second teaching deficiency. Reconsideration of this rejection in view of the above claim amendments and the following

comments is respectfully requested.

It is submitted that the cited Johnson et al, Ikeda et al and Mittendorf patents, whether taken singly or in combination, do not teach or suggest a fluid control apparatus as defined by amended claim 1. More particularly, it is submitted that these patents do not teach or suggest, among other things, the distinguishing characteristics of the tape heater holding clip used in securing the tape heater in the subject fluid control apparatus. As set forth previously, it is to be noted that, in distinct contrast to the claimed tape heater holding clip as claimed, the tape heater according to the Ikeda et al patent is secured by a bracket affixed by screws. It is submitted that the subject invention utilizing a clip distinguishes over the bracket disclosed in the Ikeda et al patent.

It is further submitted that the newly cited patent to Mittendorf does not supply the above noted teaching deficiencies. In this regard, attention is directed to the attached diagram for specifics in this regard, the diagram being a comparison of a drawing for the clip of the Mittendorf patent with a tape heater holding clip according to the presently claimed invention.

More particularly, the clip of the Mittendorf patent as shown in Fig. 5 is fixed to the metal sheet (base member) 3 and has curved clamping surfaces 15. Heater 9 has a generally circular cross-sectional shape and the heater is inserted into the fixed clip.

In distinct contrast, the tape heater holding clip 13 as is shown in Figure 3 of the present application is removably attached to tape heater 11. In addition, clip 13 has flat opposed walls 13a so as to bring the whole surface of tape heater 11 into contact with block coupling member 8. In this regard, it is to be specifically noted that a curved clip such as taught by the Mittendorf patent, if utilized in conjunction with a tape heater, would not bring the whole surface of the tape heater into contact with block coupling member.

For the reasons stated above, withdrawal of the rejection under 35 U.S.C. §103(a) and allowance of claims 1, 4/1 and 6 as amended over the cited patents are respectfully requested.

Independent claim 2 was rejected under 35 USC § 103(a) as being unpatentable over the above patent to Johnson et al in view of the patent to Lengstorf. In making this rejection, the Johnson et al patent was relied upon as in the above rejection and it then was asserted that the Lengstorf patent teaches the use of a support member having a heater insertion bore along the length thereof and a sheath heater inserted in the bore without insulation. Reconsideration of this rejection in view of the above claim amendments and the following comments is respectfully requested.

Claim 2, among other things, recites a line support member removably attached to a base member which is not shown in either of the Johnson et al and Lengstorf patents.

In addition, the patent to Lengstorf does not have the structure composed of "an upper stage, a lower stage, a line support member and a base member" with respect to the subject matter of claim 2 as amended. Thus, even the combined teachings of the Lengstorf and Johnson et al patents would not lead to the structure of a fluid controller having "a sheath heater being mounted in a line support member."

For the reasons stated above, withdrawal of the rejection under 35 U.S.C. § 103(a) and allowance of claim 2 over the cited patents are respectfully requested.

In addition, dependent claim 3 was rejected under 35 USC § 103(a) as being unpatentable over the above cited patents to Johnson et al, Ikeda et al and Mittendorf further in view of the patent to Lengstorf. Reconsideration of this rejection in view of the above claim amendments and the following comments is respectfully requested.

The above remarks relative to the teaching deficiencies of the Johnson et al, Mittendorf, Ikeda et al and Lengstorf patents are reiterated with regard to this rejection. It is submitted that these patents, whether taken singly or in combination, do not teach or suggest the fluid control apparatus as defined in these claims. Accordingly, withdrawal of the rejection under 35 U.S.C. § 103(a) and allowance of claim 3 over the cited patents are respectfully requested.

Claims 2-5 and 7 were rejected the above cited patent to Johnson et al in view of the above cited patents to Ikeda et al and Lengstorf. Reconsideration of this rejection in view of the above claim amendments and the following comments is respectfully requested.

The above remarks relative to the teaching deficiencies of the Johnson et al, Lengstorf and Ikeda et al patent are reiterated with regard to this rejection. It is submitted that these patents, whether taken singly or in combination, do not teach or suggest the fluid control apparatus as defined in these claims. Accordingly, withdrawal of the rejections under 35 U.S.C. § 103(a) and allowance of claims 2-5 and 7 over the cited patents are respectfully requested.

Applicants acknowledge with appreciation the indication that claim 9 would be allowable if rewritten in independent form.

In view of the foregoing, it is submitted that the subject application is now in condition for allowance and early notice to that effect is earnestly solicited.

In the event this paper is not timely filed, the undersigned hereby petitions for an appropriate extension of time. The fee for this extension may be charged to Deposit Account No. 01-2340, along with any other additional fees which may be required with

Serial Number: 10/511,431
OA dated November 7, 2007
Amdt. dated February 7, 2008

respect to this paper.

Respectfully submitted,

KRATZ, QUINTOS & HANSON, LLP



Donald W. Hanson
Attorney for Applicants
Reg. No. 27,133

Atty. Docket No. 040549
Suite 400, 1420 K Street, N.W.
Washington, D.C. 20005
(202) 659-2930
DWH/rab



23850

PATENT TRADEMARK OFFICE

Enclosure: Diagram